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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,490	08/18/2003	Philip Victor Harman	006020.00026	1877

22907 7590 09/09/2004

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EXAMINER	
HESSELTINE, RYAN J	

ART UNIT	PAPER NUMBER
2623	

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/642,490	HARMAN, PHILIP VICTOR	
	Examiner	Art Unit	
	Ryan J Hesseltine	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-3 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1 and 2 is/are rejected.

7)☒ Claim(s) 3 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 18 August 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/586,869.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 8/18/03, 1/21/04.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/586,869, filed on June 5, 2000.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eleftheriadis et al. (USPN 6,055,330, cited on applicant's IDS, hereafter Eleftheriadis) in view of Mackinnon (USPN 6,016,158, newly cited).

4. Eleftheriadis discloses a method of producing a depth map for use in the conversion of 2D images in a video sequence into stereoscopic images including the steps of: identifying at least one object within a video sequence (column 8, line 52-61; column 17, line 1-20); allocating an identifying tag (label, number) to each object (column 10, line 34-45, line 65-column 11, line 23; column 18, line 36-44); determining and defining an outline for each object in the sequence previously allocated said identifying tag (column 9, line 45-column 10, line 12); and allocating a depth tag to each object (column 10, line 13-26; column 17, line 40-52). Eleftheriadis does not explicitly disclose identifying and numbering each frame of the video sequence, but the examiner takes Official Notice that identifying and numbering each frame of a video sequence is well

known in the art of video compression and transmission. It would have been obvious to one of ordinary skill in the art at the time the invention was made to identify and number each frame of a video sequence in order to ensure that the sequence is properly reconstructed after it has been encoded (compressed), transmitted, and decoded (decompressed). Eleftheriadis also does not disclose dividing the video sequence into a plurality of partial sequences; transmitting the partial sequences to a plurality of operators; receiving said partial sequences from said plurality of operators; and collating said partial sequences to reform the video sequence.

5. Mackinnon discloses an object-oriented communication network including a transmitter for transmitting a data stream (video sequence) divided into a plurality of data objects (partial sequences) to a plurality of receivers (operators), which "de-select" objects of interest based on a profile/scheduler (column 3, line 19-40). The receivers then provide the objects to users or clients, which receive the objects based on the user or client's interests (column 3, line 41-54). The data receptor module then processes the incoming data stream to assemble (collate) the objects, and buffer and route them for display (column 8, line 46-60). Mackinnon discloses that each data object includes a start of object field; an object sequence number (which is analogous to numbering each frame of the video sequence); an object identifier comprising a Unique ID; a time stamp field; an associated service field; and an end of object field (column 4, line 28-38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to divide the video sequence into a plurality of partial sequences, transmit the partial sequences to a plurality of operators, receive said partial sequences from said plurality of operators, and collate said partial sequences to reform the video sequence as taught by Mackinnon in order to transmit objects (sequences) to a plurality of receivers without the need for point-to-point addressing in

which each receiver can independently select objects according to a local profile and then automatically retransmit them at desired times and in a desired sequence (such as for display on a customer's television; column 1, line 51-column 2, line 25).

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eleftheriadis in view of Mackinnon as applied to claim 1 above, and further in view of Ibaraki et al. (USPN 5,546,461, newly cited, hereafter Ibaraki).

7. Regarding claim 2, neither Eleftheriadis nor Mackinnon disclose the step of adding security measures to the sequence prior to said video sequences being divided into a plurality of partial sequences. Ibaraki discloses a scramble system for use in digital video signal recording and reproducing system wherein a video signal is scrambled (security measures added) prior to compression and transmission (Figure 9; column 18, line 39-54; column 21, line 59-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add security measure to the sequence prior to being divided into a plurality of partial sequences as taught by Ibaraki in order to perform a scramble and descramble process without any deterioration of the reproduced video signal and obtaining sufficiently higher security (column 3, line 22-31).

Allowable Subject Matter

8. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form **including all of the limitations of the base claim and any intervening claims**.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- USPN 5,130,815 to Silverman et al. discloses a method and apparatus for encoding a video signal having multi-language capabilities wherein the audio information is removed from the encoded video and combined with music and effects to form a complete audio signal.
- USPN 5,974,175 to Suzuki discloses an image processing apparatus and method for detecting a contour of an object from images of a motion picture and extracting the object therefrom.
- USPN 6,026,179 to Brett discloses digital video processing wherein pixels relating to an object are tagged using at least one of a color or appearance attribute.
- USPN 6,219,048 to Miller et al. discloses object selection using hit test tracks including labeling the pixels within a selected visual area of at least one image frame.
- "Partial video sequence caching scheme for VOD systems with heterogeneous clients" to Chiu et al.
- "Home based 3D entertainment – an overview" to Harman.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan J Hesseltine whose telephone number is 703-306-4069. The examiner can normally be reached on Monday - Friday, 8:30 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan J. Hesseltine
September 1, 2004

JINGGE WU
PRIMARY EXAMINER